

What is claimed is:

1. A method for automatic balancing of mail processing accounts for an inserter system, the method comprising:

forming mail pieces on an inserter machine, the inserter machine comprising a postage meter;

gathering register information from the postage meter while forming mail pieces, the register information including an ascending register, a descending register, and a piece count, the gathered register information being potentially incomplete, out of chronological order, or from multiple sources;

gathering postage setting information while forming mail pieces;

defining mail piece blocks based on gathered register information and postage setting information, the step of defining including assigning individual mail pieces to mail piece blocks using the following steps:

- (a) receiving register information indicating register status after a particular mail piece is processed;
- (b) comparing the register information for the particular mail piece as a function of the register information of a prior mail piece;
- (c) if the comparison is consistent with processing of a single mail piece, then assigning the particular mail piece to a same mail piece block as the prior mail piece, and otherwise assigning the particular mail piece to a new mail piece block;

identifying gaps between defined mail piece blocks and mail pieces within the gaps; and

accounting for the mail pieces within the gaps in accordance with a predetermined algorithm, the step of accounting considering a subset of mail piece blocks proximal to the identified gaps.

2. The method of claim 1 wherein the step of accounting for the mail pieces within the gaps includes applying account information to the mail pieces within the gaps corresponding to account information from a previous block.

3. The method of claim 1 wherein the step of comparing the ending register information for the particular mail piece further comprises:

(d) based on ending ascending or descending register information and the postage setting information for the mail pieces, calculating beginning ascending or descending register information for the particular mail piece before processing and comparing the beginning ascending or descending register information for the particular mail piece with the ending ascending or descending register information of the immediately prior mail piece to determine if the comparison is consistent with processing of a single mail piece.

4. The method of claim 1 wherein the step of comparing the register information for the particular mail piece further comprises comparing a piece count for the particular mail piece with the piece count for the prior mail piece, and assigning the particular mail piece to a same mail piece block as the prior mail piece if there is an interval of one mail piece, and otherwise assigning the particular mail piece to a new mail piece block.

5. The method of claim 1 further including a step of determining if mail piece blocks include overlapping mail piece information and eliminating duplicate data so that the same information is only accounted for once.

6. The method of claim 5 wherein the step of eliminating duplicate data includes defining a negative block corresponding to the overlapping mail piece information.

7. The method of claim 1 wherein the step of accounting further includes a step of defining a startpoint for performing balancing and an endpoint for performing balancing and whereby the startpoint and the endpoint encompass an identified gap and mail piece blocks bordering on the identified gap and whereby the step of accounting considers a range between the defined startpoint and endpoint, including mail piece blocks and the identified gap, for the purposes of the predetermined algorithm.

8. The method of claim 7 wherein the startpoint and endpoint are determined so that neither the startpoint nor the endpoint occur inside a mailpiece block., and whereby only one block ends at the startpoint and only one block starts at the endpoint.

9. The method of claim 1 wherein the step of identifying gaps includes sorting mail piece blocks in consecutive order to find gaps.

10. The method of claim 9 wherein the step of accounting includes creating a discrepancy block to fill an identified gap where a starting ascending register value of a second block is greater than a starting ascending register value of a preceding first block.

11. The method of claim 10 wherein the step of accounting includes creating a negative block to cancel an overlap when the starting ascending register value of the second block is less than the starting ascending register value of the first block.

12. The method of claim 11 wherein the step of accounting includes creating a funds block to balance a difference between a starting descending register value of the second block and an ending descending register value of the first block.

13. The method of claim 12 wherein the step of accounting includes creating a zero postage discrepancy block to balance a difference between a starting piece count register value for the second block and an ending piece count register value for the first block.

14. The method of claim 13 wherein the step of accounting further includes a step of defining a startpoint for performing balancing and an endpoint for performing balancing and whereby the startpoint and the endpoint encompass an identified gap and mail piece blocks bordering on the identified gap and whereby the step of accounting considers a range between the defined startpoint and endpoint, including mail piece blocks and the identified gap, for the purposes of the predetermined algorithm.

15. The method of claim 14 wherein the startpoint and endpoint are determined so that neither the startpoint nor the endpoint occur inside a mailpiece block., and whereby only one block ends at the startpoint and only one block starts at the endpoint.

16. The method of claim 15 whereby the accounting steps are iterated for all blocks at or between the defined startpoint and endpoint.